

BOOK REVIEW

AMENDT J., CAMPOBASSO C.P., GOFF M.L. & GRASSBERGER M. (eds): *CURRENT CONCEPTS IN FORENSIC ENTOMOLOGY*. Springer, Dordrecht, Heidelberg, London, New York, 2010, viii + 381 pp. ISBN 978-1-4020-9684-6. Price USD 199.00.

Jens Amendt was previously a president of the European Association for Forensic Entomology (EAFE), which strives to integrate classical entomological methods into the practice of criminal forensics. Nowadays, the number of scientists in this field is rapidly increasing and, consequently, numerous new tools and critical views of the field are becoming available. This book is a reflection of this trend, as it is a multidisciplinary view of forensic entomology, primarily aimed at young scientists and lay readers.

The original project was entitled *Forensic Entomology: New Trends and Technologies, Insects and Death*, and contained a radically different set of participating authors and respective chapters from different countries, mainly Brazil. However, major political misunderstandings among the original team ultimately culminated in direct intervention by Springer and the ejection of a number of authors, including the original responsible editor. I will not dig into the musings of these interesting conflicts, as they are part of the curious history of this publication: manuscripts always have more to them than merely what is written. From my standpoint the conflicts stemmed mainly from the multiplicity of cultural views on forensic entomology, and seem to have affected some parts of the first edition of this book.

As is the case for most multidisciplinary projects, the chapters of this book were written by different authors. Sixteen different facets of forensic entomology are presented: (1) Early Post-mortem Changes and Stages of Decomposition; (2) Keys for Identification of Immature Insects; (3) Key for the Identification of Third Instars of European Blowflies (Diptera: Calliphoridae) of Forensic Importance; (4) The Utility of Coleoptera in Forensic Investigations; (5) Phoretic Mites and Carcasses: Acari Transported by Organisms Associated with Animal and Human Decomposition; (6) Indoor Arthropods of Forensic Importance: Insects Associated with Indoor Decomposition and Mites as Indoor Markers; (7) Contemporary Precision, Bias and Accuracy of Minimum Post-Mortem Intervals Estimated Using Development of Carrion-Feeding Insects; (8) Analysing Forensic Entomology Data Using Additive Mixed Effects Modelling; (9) Toxicology and Forensic Entomology; (10) Cuticular Hydrocarbons: A New Tool in Forensic Entomology?; (11) Exploiting Insect Olfaction in Forensic Entomology; (12) Decomposition and Invertebrate Colonization of Cadavers in Coastal Marine Environments; (13) The Insects Colonisation of Buried Remains; (14) Forensic Implications of Myiasis; (15) Climate Change and Forensic Entomology; (16) Future Trends in Forensic Entomology.

As expected, the different chapters meet the expectations of readers in different ways. The technical quality of chapters is quite heterogeneous: some are truly outstanding but a few raise issues that ought to be reconsidered in the case of a second edi-

tion. I was primarily interested in the chapters discussing the forensic relevance of immature insects and chemical insect ecology – mainly chapters 2, 3, 10 and 11. I will comment on these and some of the other chapters below.

Chapter 1 is nice, yet it would greatly benefit from high-quality images and a revision of the narrative. Chapter 2 is very disappointing. Apart from the fact that the small amount of text needs major grammatical revision, the information presented on the generally neglected matter of the morphology of immature insects is unfortunately flawed and quite limited (i.e., continues the tradition of neglecting immature stages of insects). The chapter intended to discuss immature insects as a whole only generally describes the immature forms of a specific fly species (presented as “generalized fly larvae”) and even then by using poor-quality drawings originally published in Thyssen & Linhares (2007). This is followed by an identification key to insect orders on immature stages; numbering of its couplets is confusing and the “differential characters” often absurd. On the other hand, the following Chapter 3 is neatly planned, wonderfully presented and informative. Chapter 4 is alright, but left me longing for further information on the subject. Chapter 5 is quite interesting and well illustrated. Chapter 8 appeared to me to be well illustrated and written, however a bit hard to understand as it is very technical. I was greatly disappointed by chapter 9. The toxicological analysis of entomological evidence is possibly the most useful forensic application of insect evidence, yet this chapter certainly does not support this contention. Basically it is a list of the finds of previous well-known studies with little discussion and some copying and pasting – for instance, a few phrases copied from Campobasso et al. (2004) and figures copied from other published studies. Some phrases in the narrative make little sense. This chapter thus needs major reformulation and further original information. Chapter 10 is truly outstanding and clarifying, possibly now the best available summary on the subject of cuticular hydrocarbons. Chapter 12, on the invertebrates colonizing submerged corpses, is truly original and captivating. Chapters 14 and 15 seem to be quite original and unexpected and their contents nicely presented. The closing chapter summarizes the contents of the book and presents interesting insights into the field.

Thus, in my opinion this book is a good, comprehensive acquisition for the general reader. I have sent a list of tentative corrections of typographical errors, scientific names and suggestions to the editors. I look forward to a revised second edition, possibly at a more accessible market price.

E.G.P. Fox

REFERENCES

- THYSSEN P.J. & LINHARES A.X. 2007: First description of the immature stages of *Hemilucilia segmentaria* (Diptera: Calliphoridae). *Biol. Res.* **40**: 271–280.
CAMPOBASSO C., GHEPARDI M., CALIGARA M., SIRONI L. & INTRONA F. 2004: Drug analysis in blowfly larvae and in human tissues: a comparative study. *Int. J. Legal Med.* **114**: 210–214.